



# LABORATORY PERSONNEL RECEIVE LAURELS

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## Payoff

Dr. Jesse C. Ryles (shown above-left) and Mr. Bob Pinnell (shown above-right) were honored in April 1997 by the Aviation Week and Space Technology Magazine for significant contributions in the global field of aerospace. Their recognition enhances the Air Force Research Laboratory's reputation in avionics and vehicle subsystems research and development.

## Accomplishment

Dr. Jesse C. Ryles, retired Director of the Sensors (previously Avionics) Directorate, and Bob Pinnell, a former researcher in the Air Vehicles (previously Flight Dynamics) Directorate, earned laurels citations from Aviation Week Magazine for contributions in the fields of electronics and aeronautics/propulsion respectively. Each year the magazine honors individuals and teams who make substantial contributions to the global field of aerospace.

## Background

Dr. Ryles was recognized for his 30 years at the center of avionics technology development. As chief scientist during his first 20 years, he guided the Sensors Directorate Laboratory through a series of revolutionary advances in radar, electronic warfare and electronic devices. Among the most noteworthy were establishing the technology base in weapon guidance that led to most of the precision guided weapons of today. Synthetic aperture radar development and pioneering work on global positioning systems were initiated and pursued under his guidance. Mr. Pinnell was recognized for his research towards developing an injection molding process that will enable production of low cost, quick change windshields and canopies for high-performance flight vehicles. This new technique for directly forming transparencies provides frameless units that are stronger (a 500 knot birdstrike resistance against a 4 pound bird has been demonstrated) and superior in optical quality when compared to current canopies. Canopies can be produced in less than an hour at about 20 percent of the current cost.